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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,690	04/11/2006	Jiang Cheng	CN 020039	8970
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EXAMINER				
CASCA, FRED A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,690

Applicant(s)

CHENG ET AL.

Examiner

FRED A. CASCA

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 7-15, 18, 21-29, 32 and 35-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 7-15, 18, 21-29, 32 and 35-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed June 17, 2009 has been entered.

Drawings

2. Applicant's amendments overcome the objection of drawings. Thus, the objection to drawings is withdrawn.

Priority

3. The Examiner has acknowledged the Applicant's claim for foreign priority under 35 U.S.C. § 119 and the receipt of certified copy of Foreign Priority Japanese Application P2005-167234. However, a certified and *perfected* copy of the priority document, Chinese Application 02160404.5 has not been submitted to the USPTO, since the provided Chinese Application 02160404.5 is not in English. It is respectfully requested that a certified and perfected copy of the priority document be submitted in order to overcome reference Schleich et al (US 2005/0068194 A1). Reference Schleich discloses the main concepts of applicant's claimed invention and can be used as a potential reference in the rejection of applicant's claimed invention.

Claim Objections

4. Claims 1, 4, 7-15, 18, 21-29, 32 and 35-42 are objected to because the independent claims 1, 15 and 29 recite the phrase “detecting a plurality of received signals from a uplink.” It is not clear if signals are received through an uplink device, to an uplink device, or from an uplink device. Further, uplink is not a device that transmits signals. Uplink shows the direction of signal flow only. Correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 4, 7-15, 18, 21-29, 32 and 35-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1, 15 and 29 have been amended to contain new matter. The phrase “a statistical configuration configured to selectively monitor a number of request for accessing each of said different wireless communication schemes for calculating a traffic ratio in either a whole interval or a sub-interval of said whole interval,” added to independent claims 1, 15 and 29 has not been described in the specification.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 4, 7-15, 18, 21-29, 32 and 35-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 15 and 29 recite the limitation "the group". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 4, 7-9, 11-13, 14-15, 18, 21-23, 25-27, 28, 29, 32, 35-37 and 39-42 are rejected under 35 U.S.C. 102(c) are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of Cave (US 5,958,014).

Referring to claim 1, Mashinsky discloses a method for radio RF resources allocation in multi-standard wireless communication systems (Fig. 2 and Par. 37), comprising:

(a) detecting a plurality of received signals from a uplink (Par. 39, "spectrum management layer 22", "using requests"), wherein said signals contain information on the types of the different wireless communication schemes which are requested to access (Par 39, "request may have different characteristics associated with it"); and

(b) allocating the radio RF resources shared by said different communications schemes according to a type of communication scheme (Fig. 3-10, Par. 38-39, 41-42, "management layer 22 that is responsible for determining available network channels for a given transmission and for allocating channels to wireless devices").

Mashinsky does not specifically disclose selection selected from the group consisting of a statistical configuration configured to selectively monitor a number of requests for accessing each of said different wireless communication schemes for calculating a traffic ratio in either a whole interval or a sub-interval of said whole interval, as claimed by applicant.

However, making a selection based on monitoring statistical requests or statistical using of resources is conventional in the art. Cave discloses selecting an agent based upon history or requests or other statistical monitoring (col. 3, line 66 – col. 4, line 2).

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the method of Mashinsky in the format claimed by incorporating the teachings of Cave, for the purpose of providing an efficient communication system.

Referring to claim 4, the combination of Mashinsky/Cave discloses the method of claim 1, and further discloses the allocation of said RF resources is realized by calculating the ratio of the number of the requests for accessing each of said different wireless communication schemes (Mashinsky, Par. 39).

Referring to claim 7, the combination of Mashinsky/Cave discloses the method of claim 1, and further discloses step b includes steps:

b1, judging whether there are RF resources available for the requests for accessing said different wireless communication schemes; and

b2, allocating said available RF resources to said requests, if there are RF resources available for said requests (Mashinsky, Fig. 3-5 and 9-10, Par. 38-39 and 41-42).

Referring to claim 8, the combination of Mashinsky/Cave discloses the method of claim 1, wherein step (b) further includes:

(b1) pre-allocating said RF resources to a specific communication scheme (Par. 37 and 39, "GPRS ... CDPD");

(b2) judging whether there are RF resources available for the requests for accessing the different wireless communication schemes, if the different wireless communication schemes are not the specific communication scheme (Par. 38- 39, “availability”); and

(b3) allocating said available RF resources to said requests, if there are RF resources available for said requests (par. 38-39, “determining available network channels ... allocating channels”).

Referring to claim 9, the combination of Mashinsky/Liang discloses the method of claim 7, wherein step (b2) and (b3) are executed in following condition:

subscribers send said connection requests for accessing said different wireless communication schemes (Par. 39, “mode”, “band”).

Claim 15 recites features analogous to the features of claim 1, thus, the combination of Mashinsky/Cave discloses all elements of claim 15 (please see the rejection of claim 1 above).

Referring to claims 14 and 28, the combination of Mashinsky/Cave discloses the method of claims 1 and 15, wherein said wireless communication schemes include at least two of following: IS-95, CDMA, **GSM**, **TSM**, **GPRS**, TD-SCDMA, W-CDMA cdma 2000 and WLAN (Par. 37).

Claims 21-23 recite features analogous to the features of claims 7-9. Thus, they are rejected for the same reasons that claims 7-9 were rejected.

Claims 29, 35, 36, 37 and 42 recite features analogous to the features of claims 1, 7, 8, 9 and 14 respectively. Thus, the combination of Mashinsky/Cave discloses all elements of claims 29, 35, 36, 37 and 42.

Referring to claim 11, the combination of Mashinsky/Cave discloses the method of claim 7.

Mashinsky further discloses determining availability of network channels for a given transmission and for allocating channels to wireless devices.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify Mashinsky's availability scheme in the format claimed such that (i) judging whether there are RF carrier available for said requests, if there are no RF resources available for said requests for accessing said wireless communication schemes; and (ii) allocating said available RF carrier to said wireless communication schemes, if there are RF carriers available for said requests, and allocating the corresponding RF resources to said requests for the purpose of providing an efficient communication system.

Referring to claim 12, the combination of Mashinsky/Cave discloses the method of claim 11, and inherently disclose when the communications employing said wireless

communication schemes ends, said RF carriers allocated to said requests are released (Mashinsky, Par. 37 and 38-41).

Referring to claim 13, the combination of Mashinsky/Cave discloses the method of claim 11, and inherently discloses if there are no RF carriers available for said requests, said requests are rejected Mashinsky, Par. 37 and 38-41).

Claim 18 recites features analogous to the features of claim 4. Thus, the combination of Mashinsky/Cave discloses all elements of claim 4.

Claims 25-27 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

Claim 32 recites features analogous to the features of claims 4. Thus, the combination of Mashinsky/Cave discloses all elements of claims 32.

Claims 39-41 recite features analogous to the features of claims 11-13. Thus, they are rejected for the same reasons that claims 11-13 are rejected.

11. Claims 10, 24 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashinsky et al (US 2003/0050070 A1) in view of Cave (US 5,958,014) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 10, combination of Mashinsky/Cave discloses the method of claim 7.

Mashinsky does not specifically disclose subscribers which carry out cell handover send handover requests for accessing different wireless communication schemes, in the format claimed by applicant.

The examiner takes official notice of the fact that handover request is well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Mashinsky in the format claimed, for the purpose of providing an efficient communication system.

Claims 24 and 38 recite features analogous to the features of claim 10. Thus claims 24 and 38 are rejected for the same reasons/arguments that were used in the rejection of claim 10.

Response to Arguments

12. Applicant's arguments with respect to claims 1,4,7-15,18,21-29,32 and 35-42 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred Casca/

Patent Examiner, Art Unit 2617

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617